

REMARKS

Claims 13-28 were pending in the application. Claims 13-28 have been rejected under 35 U.S.C. §102(e) as being deemed anticipated by U.S. Patent No. 6,389,462. (Cohen et al.) Of the Claims, Claims 13, 19, 21 and 27 are independent. Claims 29-31 are newly added. Support for the newly added claims is in the Applicants' specification as originally filed. (*See* for example, Page 37 line 3-Page 38, line 2.) Claims have been amended to clarify the Applicants' invention. The application as amended and argued herein, is believed to overcome the rejections.

Regarding Joint research agreement prior art exclusion under 35 U.S.C. 103(a)

The Office bases the finality of the Office Action on Applicants' submission of the requirements for the joint research agreement prior art exclusion under 35 U.S.C. 103(c) on September 27, 2004. However, Applicants did not make such a submission and respectfully request reconsideration of the reason for the finality of the Office Action.

Regarding Rejections under 35 U.S.C. § 102(e)

Claims 13-28 have been rejected under 35 U.S.C. §102(e) as being deemed anticipated by U.S. Patent No. 6,389,462 (Cohen et al.).

An embodiment of the Applicants' invention is directed to dynamic replication of objects in a network storage system that includes a plurality of storage centers. The replication of objects stored in the storage centers occurs by storing a copy of an object in cache in a plurality of control nodes. The number of control nodes storing a respective copy of the object is dependent on the number of requests to retrieve the object. (*See*, for example, Fig. 10.)

Turning to the cited reference, Cohen discusses a proxy redirector for transparently redirecting a request to an origin server to a proxy cache. The redirection is performed by translating the destination address of packets to the origin server to the destination address of a proxy cache provided by a domain naming service. A proxy redirector selects a proxy cache to which to forward client requests based on origin server IP address with requests for objects from a specific origin server being served by a specific proxy cache. (*See* col. 7, lines 46-47.)

Cohen fails to disclose or suggest at least

“in response to a subsequent request to retrieve the object, selecting another control node; and

storing the object in another cache at the another control node, a number of control nodes each storing a respective copy of the object dependent on the number of requests to retrieve the object.”

and so fails to disclose the invention as recited in claim 13.

In the system discussed by Cohen, each request for a copy of a file stored on an origin server is directed to a particular proxy cache dependent on the IP destination address included with the request. There is no suggestion of storing another copy of the file in another proxy cache. In contrast, a subsequent request to retrieve the file would be sent to the same proxy cache, that is, the particular proxy cache associated with the origin server. As the file would already be stored in the particular proxy cache, another copy would not be retrieved from the origin server.

In contrast in an embodiment of the Applicants' claimed invention in response to a subsequent request to retrieve the object, another control node is selected and the object is stored in another cache at the another control node. The number of control nodes each storing a respective copy of the object is dependent on the number of requests to retrieve the object. Thus, a popular object is stored in cache in multiple control nodes, increasing the cache hit rate.

Claims 14-18 are dependent claims that depend directly or indirectly on claim 13, which has been shown to be distinguished over the cited art. Independent claims 19, 21 and 27 recite a like distinction and are thus distinguished over the cited art. Claim 20 depends directly on claim 19, claims 22-26 depend directly or indirectly on claim 21 and claim 28 depends directly on claim 27 and are thus distinguished over the cited reference.

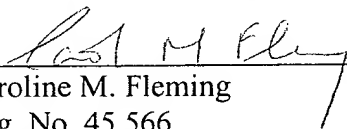
Accordingly, the present invention as now claimed is not believed to be anticipated by the cited reference. Removal of the rejections under 35 U.S.C. § 102(e) and acceptance of claims 13-28 is respectfully requested.

CONCLUSION

In view of the foregoing, it is submitted that all claims (claims 13-31) are in condition of allowance. The Examiner is respectfully requested to contact the undersigned by telephone if such contact would further the examination of the above-referenced application.

Respectfully submitted,

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